

REMARKS

Claims 11, 13 and 16-23 are pending in this application. Claims 18 and 19 stand withdrawn.

By this Amendment, Applicants' specification is amended to correct an error. Claims 20-23 are added. Support for claims 20-23 is found in Applicants' specification at least at page 8, lines 27-29 and in claim 11 and Fig. 3. Claims 11 and 19 are amended for clarity and to avoid redundancy. No new matter is added.

Applicants enclose a 37 C.F.R. §1.132 Declaration to add additional factual evidence to the record and show how a person of ordinary skill in the art would understand the claimed subject matter.

Reconsideration of the application in view of the above amendments, the following remarks and the enclosed Declaration is respectfully requested.

The courtesies extended to Applicants' representative by Examiner Choi at the interview held June 30, 2010 are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below, which constitute Applicants' record of the interview.

I. Amendments to Applicants' Specification

Applicants' specification contains an error in the background section. Here, Mobi-Mat was described as a plastic mesh that allows air to pass through it. This is clear error, for example, because Applicants' specification describes that mat as being 0.4 meter thick and 56.5 kilograms per a 4.2 meter x 8 meter mat (i.e., well over a kilogram per each square meter). The Mobi-Mat referenced in the specification was not a mesh.

The following URL is a link to the technical data of the current range of Mobi-Mat helipad products: http://www.mobi-mat-defense-deschamps.com/technical_data.php. The heavy duty Mobi-Mat products (i.e., the MM3V25 and MM3C25 products) were available at

the priority date of the present U.S. Patent Application 10/578,499. However, the LX BROWN and the A2X products were not publicly known at the priority date of U.S. Patent Application 10/578,499. The MM3V25 and MM3C25 products are made from solid, plastic material and include reinforced fiberglass bars. These products are intended to be load-bearing, whereas the claimed mat is not load-bearing.

Applicants' specification is amended to remove the error. It now describes Mobi-Mat as a solid plastic material impermeable to air.

II. 35 U.S.C. §112, Rejection

Claim 11 recites, among other features, "the first layer is held in a substantially fixed position on top of the second layer without an intervening layer between the first and second layers." The feature was added to distinguish over a reference in which the spacing between two layers resulted from the existence of a layer between those two layers. The Office Action rejects claims 11, 13, 16 and 17 as new matter for allegedly not having support for a mat having only two layers. This rejection is respectfully traversed.

At least Fig. 1 and Applicants' specification at page 3, line 26 and page 18, line 12 support a mat having two layers. Moreover, the claims only require that there be no intervening layer between the claimed first and second layers. The claims are not limited to mats having only two layers. More than two layers can exist as long as the additional layer(s) is/are not disposed between the claimed first and second layers.

Reconsideration and withdrawal of the rejection are respectfully requested.

III. 35 U.S.C. §103 Rejection

The Office Action rejects claims 11, 13, 16 and 17 under 35 U.S.C. §103(a) over WO 02/39857 to Reynolds in view of U.S. Patent No. 5,870,785 to Hoorens and U.S. Patent No. 2,774,127 to Secrist, and further in view of U.S. Patent No. 5,472,458 to Ogawa. The rejection is respectfully traversed.

A. The Combination of Claimed Features Yield Unexpected Results

Claim 11 recites, among other features, "each layer of the mesh material has a wind attenuation factor of between 40% and 80% for wind directed at right angles onto the mesh material at 50 km/h based on the average stitch length, the average separation, and the porosity of the first and second mesh layers."

The enclosed Declaration shows that the combination of the recited stitch length range, average separation range and porosity range yields unexpected results. For example, the Declaration asserts that mats satisfying all three of the claimed ranges are superior to mats that do not satisfy one or more of the three claimed ranges. In addition, despite the expectation of one of ordinary skill in the art that the downdraft would create an uplift effect on the edges of a helicopter landing mat, the Declaration shows that the combination of recited features create a tumbling effect that takes advantage of the helicopter rotor's downdraft, eliminates "brown-out" conditions above the mat and reduces the need for heavy pegging. In addition, the recited mat is much lighter than previously-used landing pads, and can be rolled-up and easily carried by an individual.

B. The Combination of Applied References Would Not Have Rendered Obvious the Claimed Subject Matter

The Office Action recognizes that none of the applied references discloses the above-quoted feature. However, the Office Action asserts that Reynolds in view of Hoorens, Secrist and Ogawa would have rendered obvious this feature.

The Office Action asserts that the layers of Reynolds necessarily comprise a separation distance, a porosity and a stitch length. Then, the Office Action pieces together various teachings from three other references that allegedly teach the claimed "average stitch length," "average separation," and "porosity." The Office Action asserts that it would have

been obvious to optimize each of "average stitch length," "average separation" and "porosity" individually.

As discussed in MPEP §2144.05(II)(B), a particular parameter must first be recognized as a result-effective variable, i.e., a variable that achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. In In re Antonie (citations omitted), a claimed wastewater treatment device had a tank volume to contractor area ratio of 0.12 gal./sq. ft. The prior art did not recognize that treatment capacity is a function of the tank volume to contractor ratio, and therefore the parameter to be optimized was not recognized in the art to be a result-effective variable. Thus, an optimization argument can only be made when a variable is concretely tied to a specific result.

Here, the Office Action fails to establish that the three claimed variables were known to provide any particular result, and especially a result relating to the problems associated with a helicopter landing pad. In particular, the references do not recognize (or address) the problems caused by a helicopter's downdraft on a material and the uplift effect, or that such problems are a function of the mat's structure.

Therefore, one of ordinary skill in the art would not have considered varying the "average stitch length," "average separation" and "porosity" of the applied references to the recited ranges of claim 11. Thus, the Office Action's "optimization" assertion is baseless.

In addition, the Office Action uses impermissible hindsight to select features from the references from entirely different fields of art in an attempt to match the features recited in the claims. The Office Action has not provided a reasonable underlying motivation to piece together the specific combination of properties desirable for a helicopter landing mat. To whatever extent the individual references can be considered to disclose specific features, one of ordinary skill would have had no reason to selectively combine the teachings of the applied

references in the way proposed in the Office Action. Thus, a person of ordinary skill in the art would not have combined the references in the manner proposed by the Office Action without the use of Applicants' specification as a roadmap.

Thus, the Office Action fails to establish why one of ordinary skill would have to look to ranges corresponding to those recited in claim 11.

IV. Summary

For at least the above reasons, Reynolds cannot reasonably be considered to teach, or to render obvious, the combination of features recited in independent claim 11. Further, as shown above, Hoorens, Secrist and Ogawa are not applied in any manner that would overcome the above-identified shortfall in the application of Reynolds to the subject matter of independent claim 11. To any extent that Reynolds is even combinable with Hoorens, Secrist and/or Ogawa, a conclusion which Applicants do not concede, no permissible combination of these references can reasonably be considered to have rendered obvious the combination of features recited in claims 13, 16 and 17, for at least the respective dependence of these claims directly on an allowable base claim, as well as the separately allowable subject matter that these claims recite.

Accordingly, reconsideration and withdrawal of the rejection of claims 11, 13 and 16 and 17 under 35 U.S.C. §103(a) is respectfully requested.

V. New Claims 20-23

New claim 20 recites the above-quoted features of claim 11, and is thus allowable for the same reasons as discussed above. In addition, claim 20 recites "the helicopter landing mat has a size of at least 49 square meters."

To any extent that the current rejection of claim 11 might be applied to claim 20, the applied references would not have rendered obvious the above quoted feature in combination with the other features of claim 20. No motivation can be found in the applied references to

combine their various teachings to have a helicopter landing mat with the recited size and wind attenuation factor.

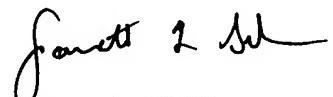
Claims 21-23 depend from claim 20 and thus also are patentable.

VI. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 11, 13 and 16-23 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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Attachments:

37 C.F.R. §1.132 Declaration with Photograph
Petition for Extension of Time

Date: July 30, 2010

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